San Joaquin River
Total Maximum Daily Loads

Dr. Karl Longley, Chair

Central Valley Regional Water Quality Control Board

Delta Team

- Joint effort of State, Central Valley and San Francisco Bay Water Boards
- Implementation of coordinated efforts in Bay Delta
- Strategy and Workplan under development
- Work includes TMDLs and several other projects

State Water Board Workshop

- Date: 19 March 2008

- Purpose: To receive information on Development of a Strategic Workplan for the San Francisco Bay/Sacramento-San Joaquin Delta

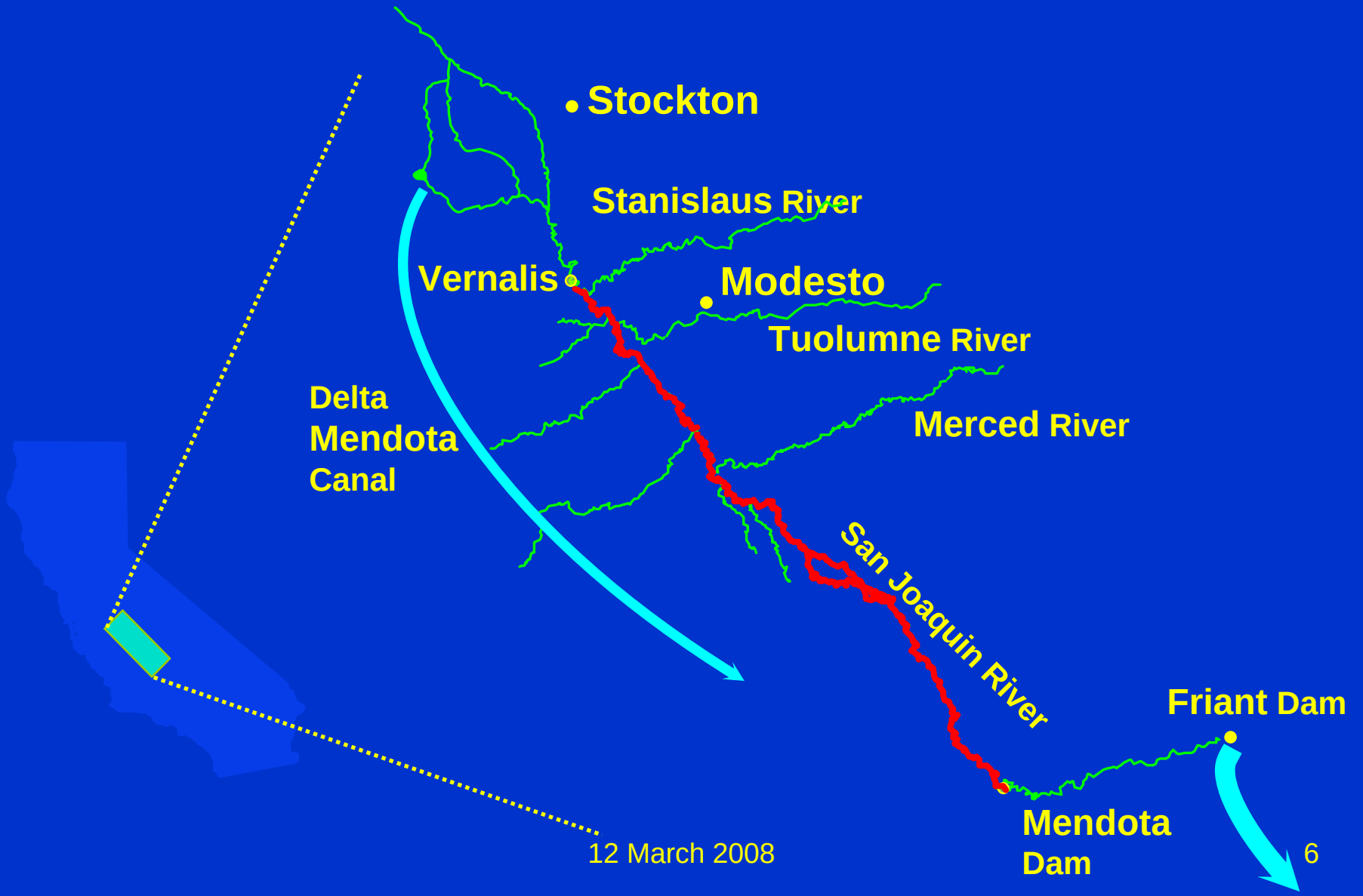
Total Maximum Daily Loads (TMDLs)

- Part of Federal clean water program
- Prepared for impaired water bodies as a cleanup effort
- Dischargers are allocated loads of pollutants (e.g. 50 pounds of salt per day)

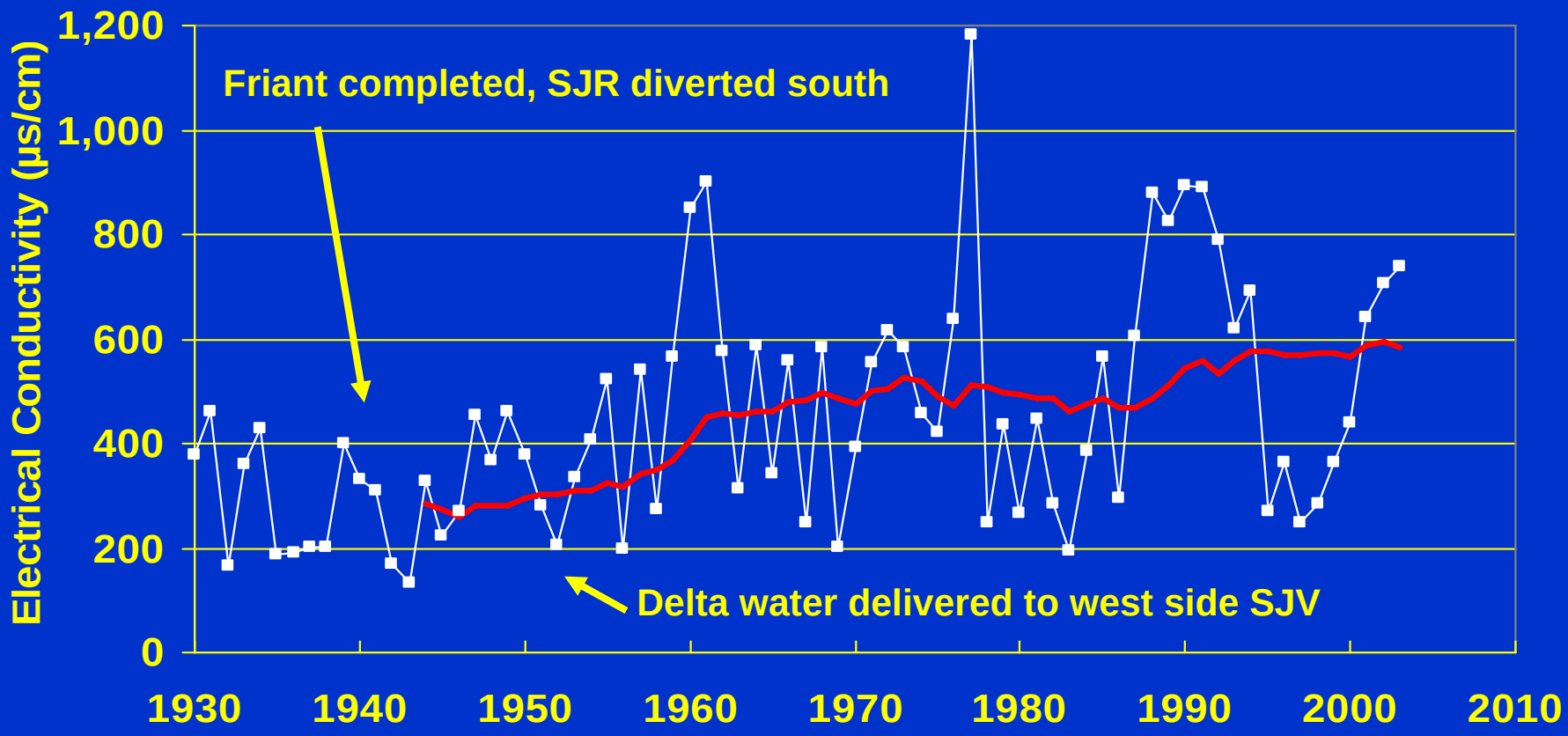
San Joaquin River TMDLs

- Adopted
  - Selenium
  - Dissolved oxygen
  - Organophosphate pesticides
  - **Salt and boron at Vernalis**
- Pending and under development
  - Pathogens in Stockton-area sloughs
  - Mercury
  - **Upstream salt and boron**

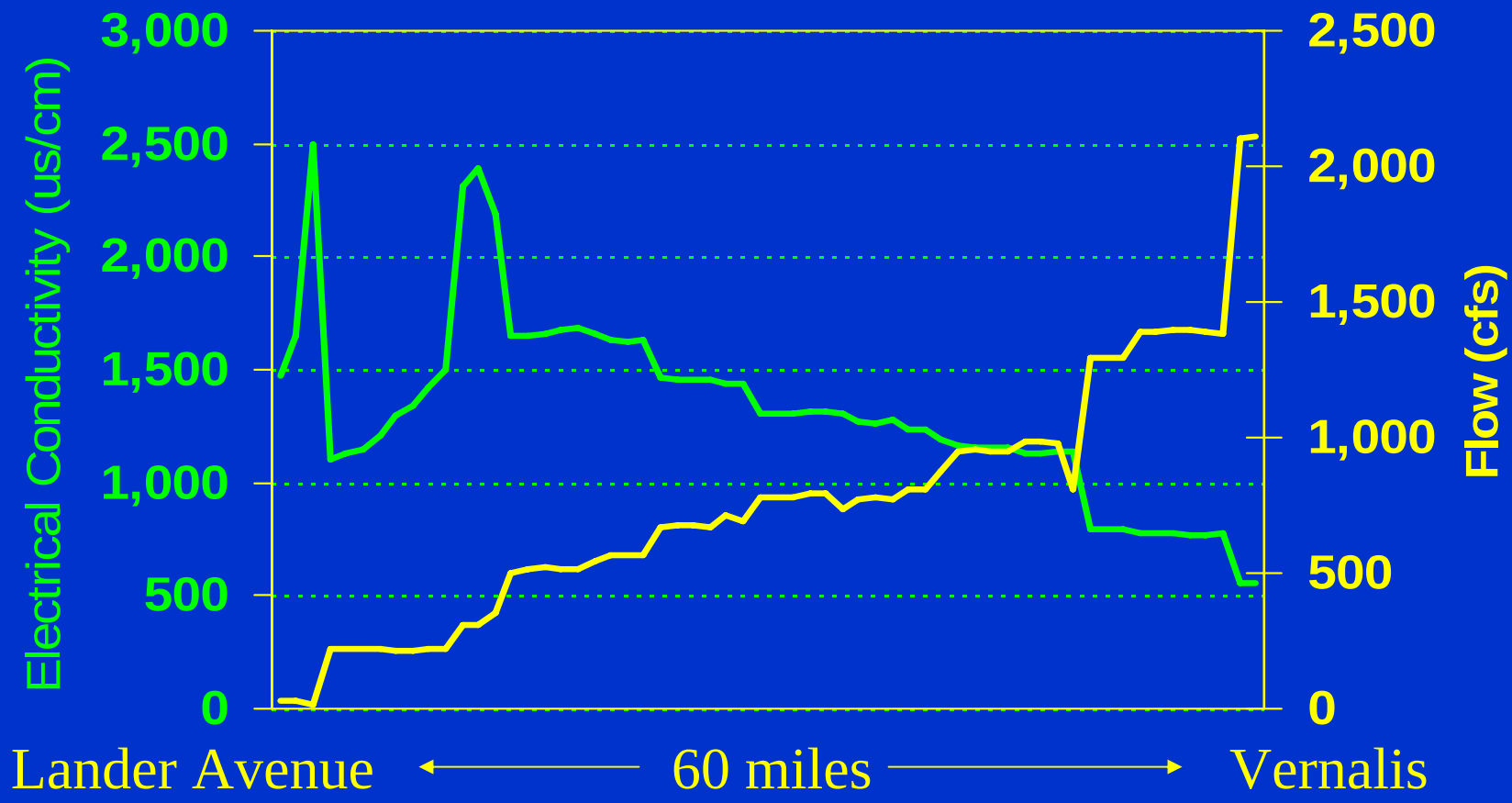
Lower San Joaquin River Basin



Average Electrical Conductivity SJR Near Vernalis



Flow and Salinity, July 1999

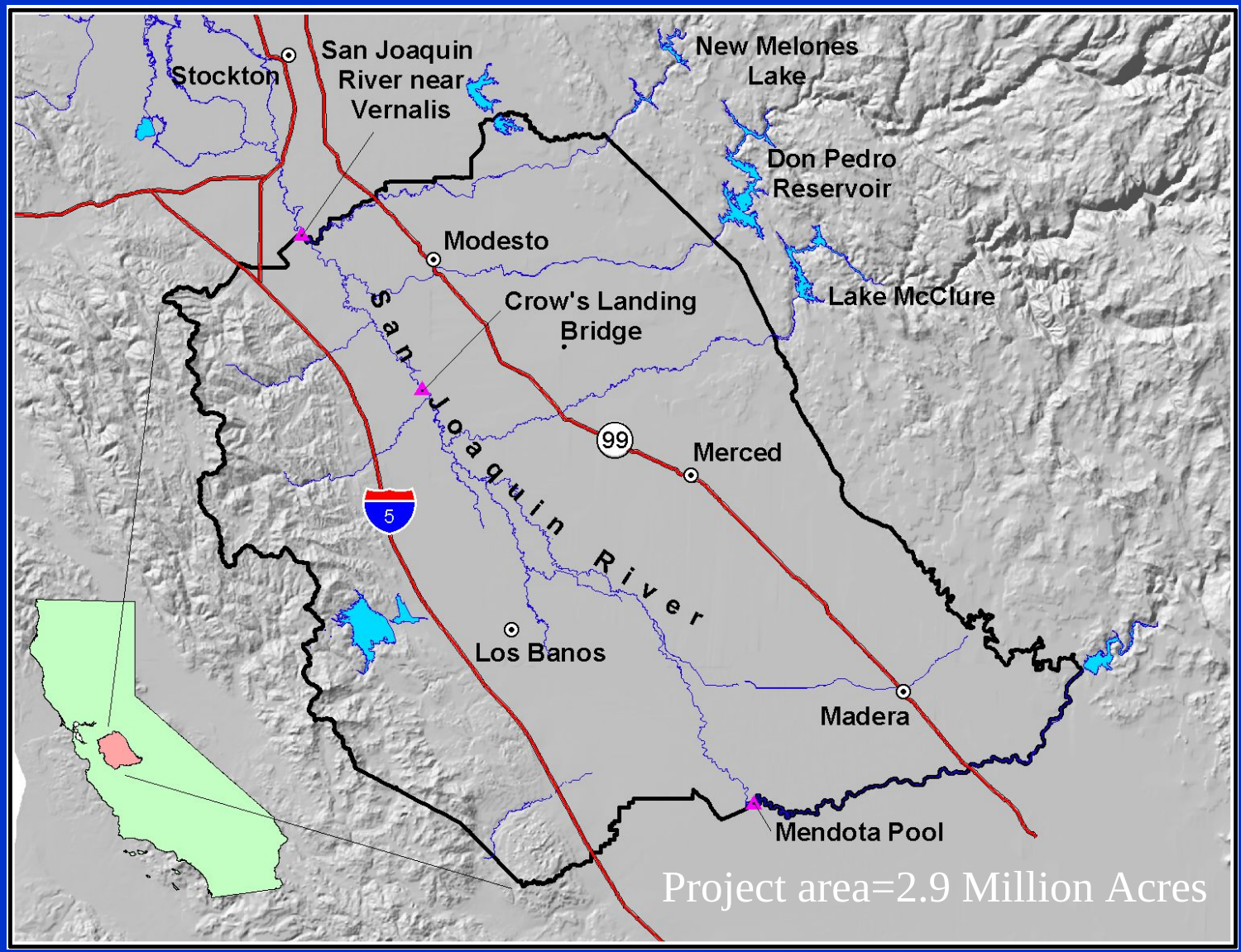


Salt Water Quality Objectives for the San Joaquin River Near Vernalis

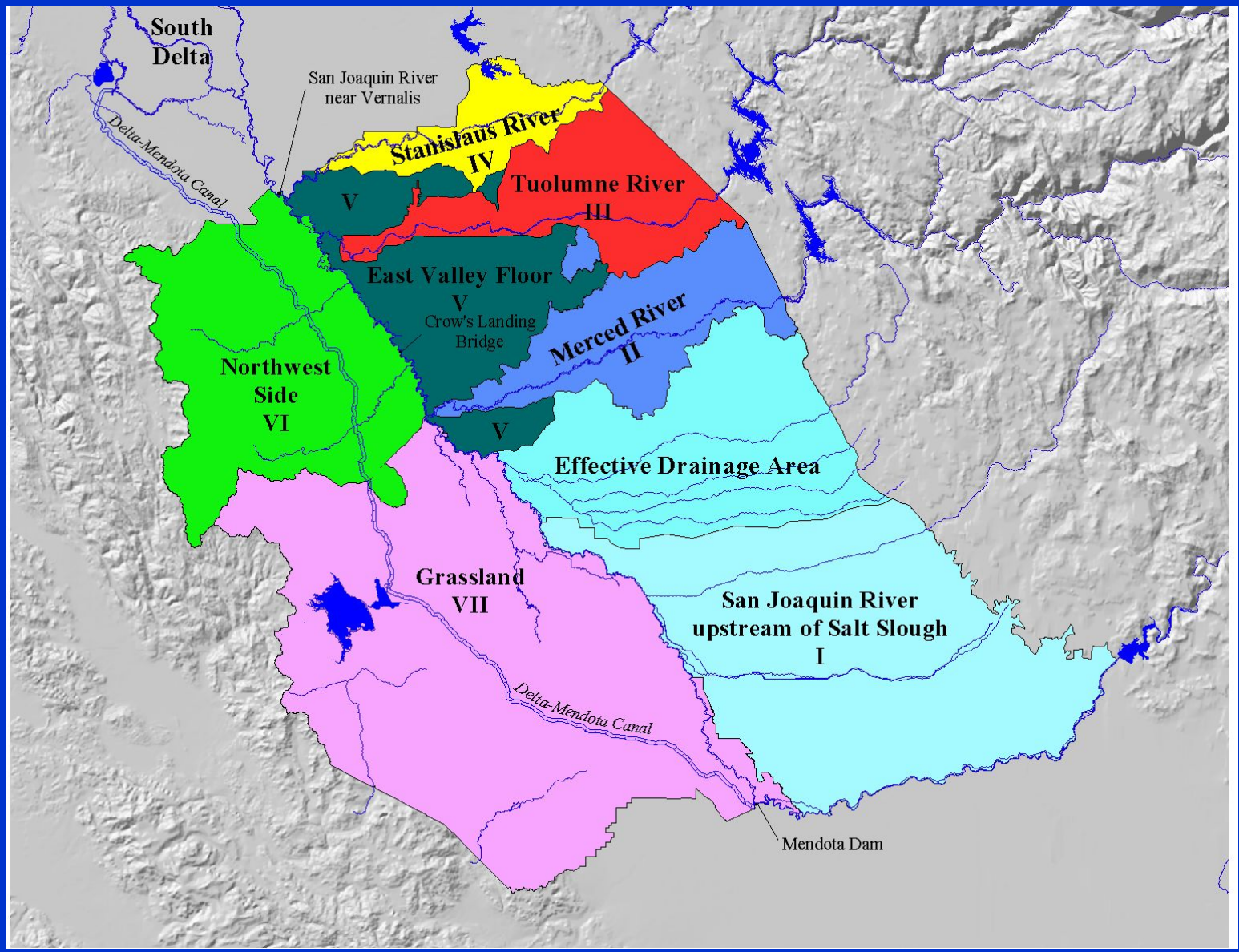
	Irrigation Season (April-Aug.)	Non-Irrigation Season (Sept.-March)
Electrical Conductivity	**700 (µS/cm)**	**1000 (µS/cm)**

µS/cm = microsiemens per centimeter

Project Area



Lower San Joaquin River Subareas



Priority of Subareas

Table IV-4.2: Priorities for implementing load allocations[1]

Subarea	Priority
San Joaquin River Upstream of Salt Slough	Low
Grassland	High
Northwest Side	High
East Valley Floor	Low
Merced River	Low
Tuolumne River	Medium
Stanislaus River	Low
Delta Mendota Canal[2]	High

[1] Priorities based on the unit area salt loading from each subarea and mass load from the DMC

[2] Delta Mendota Canal is not a subarea

Time Schedule

Table IV-4.3: Schedule for Compliance with the load allocations for salt and boron discharges into the LSJR

Priority	Year to implement[1]	
	Wet through Dry Year Types	Critical Year Types
High	8	12
Medium	12	16
Low	16	20
[1]number of years from the effective date [28 July 2006] of this control program		

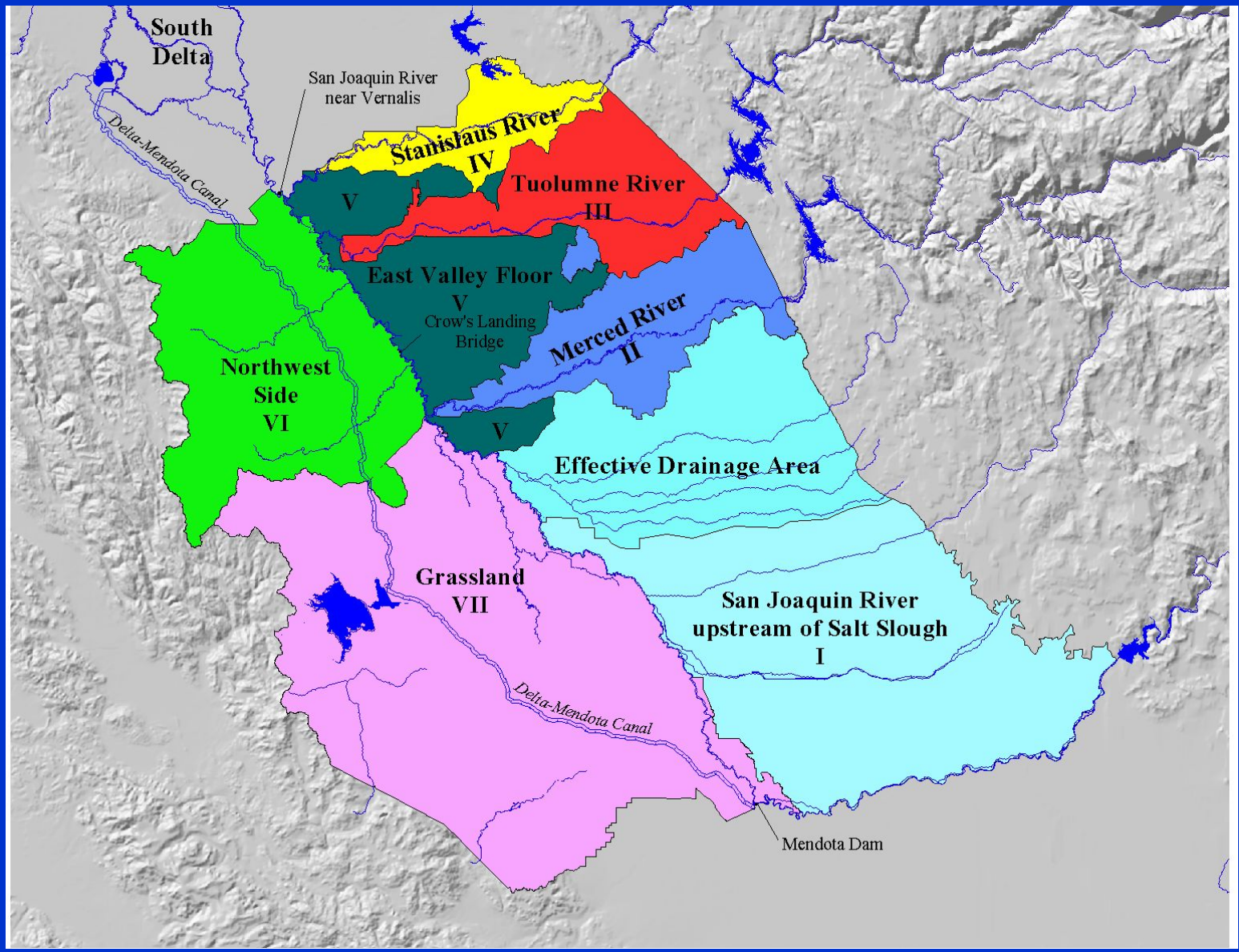
Nonpoint Source Load Allocations

BASE SALT LOAD ALLOCATIONS

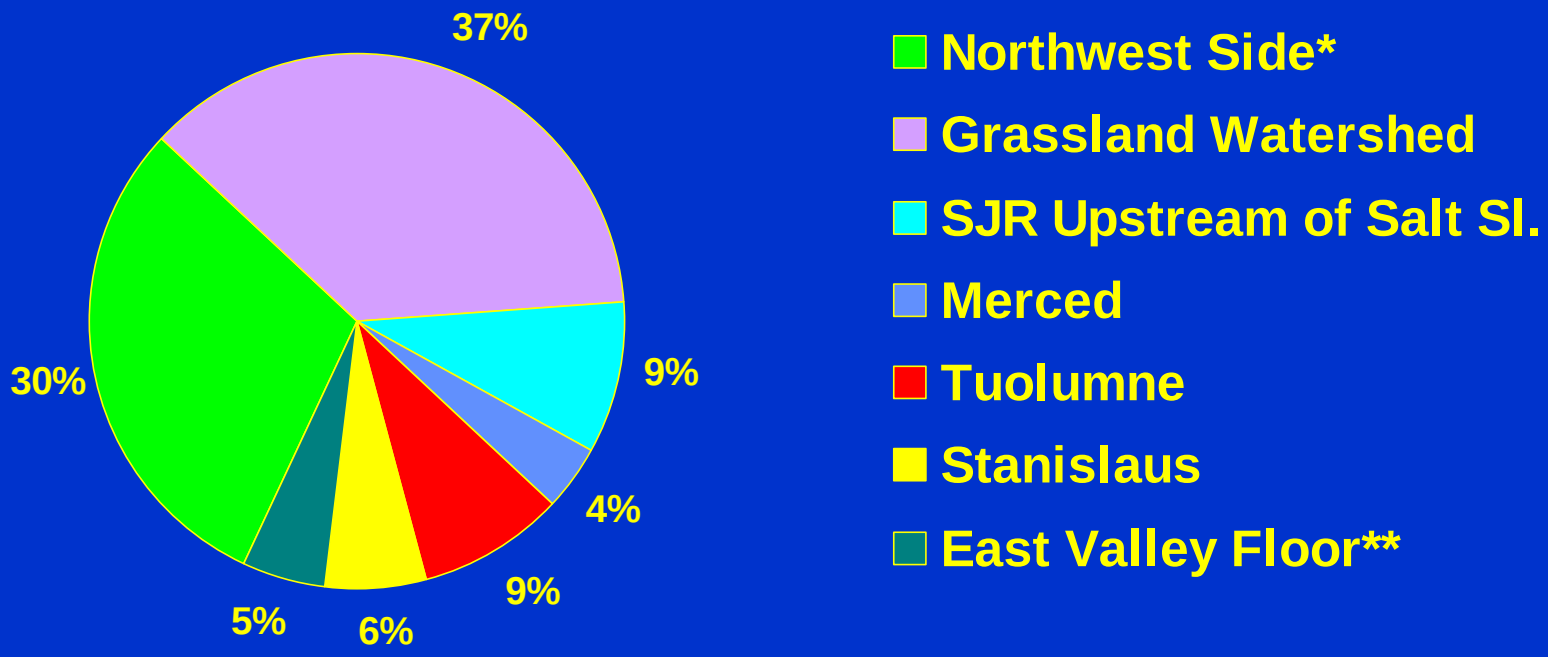
Base Load Allocations (thousand tons of salt)

Year-type[1]	Month / Period												
	Jan	Feb	Mar	Apr 1 to Apr. 14	Pulse Period [2]	May 16 to May 31	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Wet	41	84	116	23	72	31	0	0	5	45	98	44	36
Abv. Norm	44	84	64	26	71	14	0	0	0	44	58	35	32
Blw. Norm	22	23	31	11	45	8	0	0	0	38	41	34	30
Dry	28	39	25	5	25	1	0	0	0	25	31	27	28
Critical	18	15	11	0	0	0	0	0	0	19	30	26	23

Lower San Joaquin River Subareas



Sources of Salt (by sub-area)

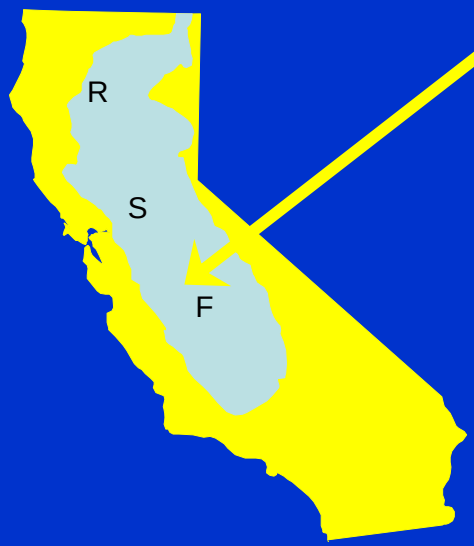


Mean Annual Salt Load to SJR for WY 1977 to 1997: 1.1 million tons

*Northwest Side estimated by difference :Vernalis minus sum of other sources

** East Valley Floor extrapolated from TID 5 data (1985-1996)

Project Location



San Joaquin River

Mud Slough

San Luis Drain

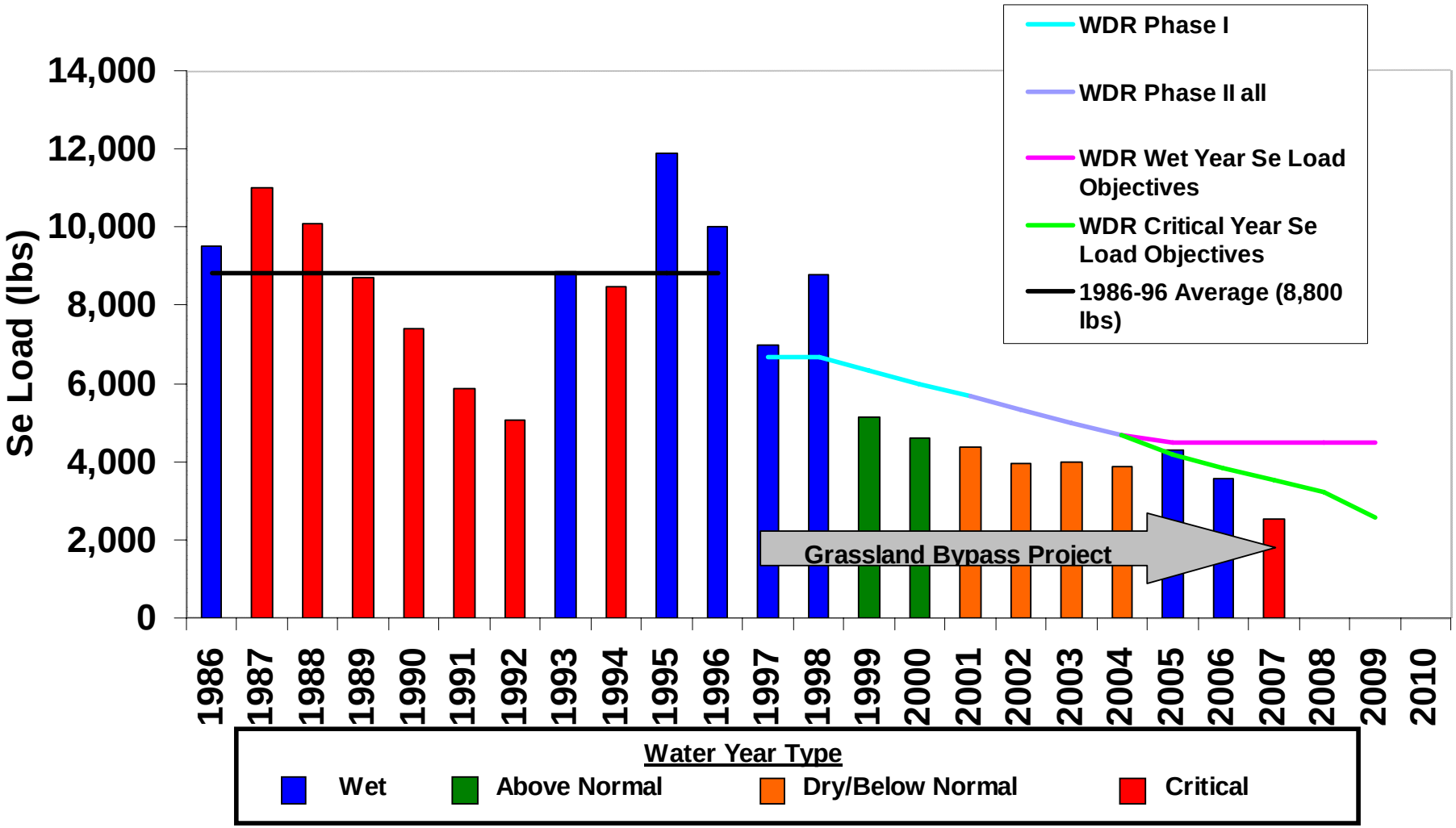
City of Los Banos

State & Federal wildlife refuges

Grassland Bypass

Drainage area

GBP Annual Selenium Discharge



Grassland Area Farmers Request for Time Extension

- Basin Plan amendment needed to adjust time schedule

Questions?